

Abstract

A hydraulic circuit for linearly driving a machine-tool slider in both directions, comprising an hydraulic cylinder (5) whose piston rod (4) is connected to a slider and which is fed with pressurized fluid from a reservoir (14) by a pump (15) through a three-position four-way valve (18), a check valve (12-13), and between the last ones, a pair of throttling valves (19, 19') which are mounted symmetrically each other and operated to generate an increased pressure in either one or the other chamber, which is at the moment in a low pressure, of the hydraulic cylinder (5) in order to slow down said slider in its work motion in both directions of linear travelling when a programmable interval is approached from a predetermined position for each working pass.

Situated in the bypass (190, 190') of each throttling valve (19, 19'), among the same valves (19, 19') and the hydraulic cylinder (5), is a manual flow control valve (20, 20').